REMARKS

Claims 2, 3, 9, 10, 12 to 18 continue to be in the application.

Claim 1 is being cancelled.

Claim 3 is being amended based on the language of claims 4 through 8 and the specification, page 4, lines 7 to 9..

Claims 4 and 6 and 8 are being cancelled.

Claim 5 incorporates the language of claim 6.

Claim 7 incorporates the language of claim 8.

Claim 11 stands withdrawn from consideration.

New claims 19 to 24 are being introduced.

New claim 19 is based on the language of claim 2.

New claim 20 is based on the language of claims 9 and 10.

New claim 21 is based on Figs. 1 and 2.

New claim 22 is based on the language of claim 1.

New claim 23 is based on the language of claim 3 and the specification. Page 4, lines 5 to 10.

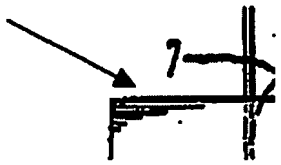
New claim 24 is based on the language of claims 9 and 10.

The Office Action refers to Claim Rejections - 35 USC § 103.

12. Claims 1-5 & 7-10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gruhler (U.S. Patent 4924598) in view of Kaburagi et al. (U.S. Patent 5434602).

The rejection is respectfully traversed.

With reference to claims 1-5, 9, & 10 Gruhler discloses a device and method of using for measuring the thickness of objects comprising a base (30) from which a column (1) rises vertically with a placement surface for the object (X, see below),



X

whereby a length-measuring system is arranged along the column comprising a continuously looped belt (5) mounted along the column on a carriage (3) (Figure) along a groove/guide (2) & rollers (6,7) (Figures 1 & 10); moved along the column by means of an electric motor (10) (Figure 2), while a projecting arm (4) engages the belt being able to accompany the movement of the belt for making contact with the object to be measured (Figure 1).

Applicant respectfully disagrees. The Office Action alleges that the Gruhler reference teaches the presence of "a projecting arm 4", while the reference Gruhler refers in column 5, lines 15 to 20 to "the measuring pin 4 rigidly installed. If, for example, the steel belt 5 is moved upwards, the entire measurement carriage 3 with the measuring force generator unit 12 will move along in the same direction until the measuring pin 4 comes into contact with a measurement site of a measurement object." This means that the Gruhler reference measures the height of measurement objects which have a measurement site engageable with the measuring pin 4.The present invention is particularly directed to measure the thickness and/or length of

pharmaceutical objects such as tablets, pills or oblongs. The measurement pin 4 taught in the reference Gruhler however is unsuitable to measure such tablets, pills or oblongs, since these tablets, pills or oblongs lack a measurement site engageable with the measurement pin 4 of the Gruhler reference. In contrast to the measurement pin 4 of the Gruhler reference, claims 2, 12, 19 and 21 of the present application require a projecting arm 10, 21 capable of making contact with the object. For example, claim 2 of the instant application contains the clause "while a projecting arm (10, 21) engages the magnetic belt (5, 15), said arm being able to accompany the movement of the magnetic belt (5, 15) for purposes of making contact with the object to be measured.". While the projecting arm (10,21) of the present application is eminently suitable to measure the thickness or length of tablets, pills or oblongs, the construction as taught in the Gruhler reference is incapable of doing so.

Applicant urges that a measurement pin 4 with a small diameter is not capable to measure the thickness and the length of pharmaceutical tablets, pills and oblongs since the measurement pin 4 will not reliably contact the proper point of measurement of the tablets, pills or oblongs. In contrast, the projecting arm 10, 21 with a broad flat surface for contacting the proper point of measurement of

the tablets, pills or oblongs together with the placement surfaces 25, 25' will allow very precise measurements of the thickness and length of the tablets, pills or oblongs.

In conclusion, while the height measurement instrument of the Gruhler reference employs a measurement pin 4 to contact a measurement site of a measurement object, the projecting arm (10, 21) of the instant claims makes contact with the object (12) without requiring an identified measurement site.

The Office Action further alleges a presence of "a placement surface for the object" according to the Gruhler reference and points with an arrow to a corner of a support 1 in Fig. 1 of the Gruhler reference. However the corner of the support 1 with the arrow is outside of the engagement region of the measurement pin 4 and certainly will not be serving as a placement surface for the object in view of the distance in a horizontal direction from the tip of the measurement pin 4 to the corner of the support 1.

Claims 2, 12, 19 and 21 clearly require a presence of a placement surface and no placement surface is indicated in the Gruhler reference.

The teaching of the Gruhler reference makes it clear that in contrast to the present invention the reference Gruler is not directed to measure the thickness and/or the length of such tablets, pills or oblongs.

The reference Gruhler fails to teach how a thickness or a length of a tablet could be measured with the construction according to the Gruhler reference. The reference Gruhler suggests possibilities for realizing an adjustable

measurement force, but does not teach a measurement of a thickness or of a height of tablets, pills or oblongs.

Gruhler does not disclose the belt is magnetic and provided with a plurality of pole pitches, with a stationary magnetic field sensor having an electric evaluation circuit on the base.

The reference Gruhler teaches however in the last six lines of the ABSTRACT: "The drive motor for moving the carriage is controlled by a control which ensures that the movement for urging the measurement in against the article will always take place at a selected measurement pressure between the pin and the article to be measured.". This clearly indicates that no need for a magnetic belt is seen or suggested in the Gruhler reference.

Kaburagi et al. discloses a recording apparatus with a magnetic linear encoder in the embodiment shown in Figure 60 with a looped scale (733) with pole pitches (col. 28 line 27) sensed by a stationary magnetic sensor (737) and a counting circuit (739) in order to read information on said scale without hindering any other component (col. 28 lines 36-40) and detect the speed and position of the carriage (732) (col. 28 lines 48-50).

Applicant respectfully disagrees. The reference Kaburagi et al. in column 28, lines 28 to 36 appears to be internally inconsistent. The reference Kaaburagi et al, column 28, lines 28 to 36 reads as follows: "An end of the

scale 733 is fixed to a carriage 732, which is fixed to a carriage belt 734. Said belt 734 is supported between a driving motor 731 and a belt pulley 735, while the other end of the scale 733 is fixed on a pulley 747, which is rotatable on a shaft of the belt pulley 735. Said pulley 747 and said belt pulley 735 are elastically connected by a spring 746. As a result, the scale 733 is taken up, without slack, on the pulley 747, regardless of the movement of the carriage 732."

If "An end of the scale 733 is fixed to a carriage 732, which is fixed to a carriage belt 734.", i.e. scale 733 is fixed to carriage 732 and in turn to carriage belt 734, how can then the scale 733 be taken up regardless of the movement of the carriage 732? How is it possible at the same time to have scale 733 fixed to carriage 732 and to have scale 733 be taken up regardless of the of the movement of the carriage 732? How can the carriage 732 fixed to the scale 733 move any different from the motion of the scale 733?

It is urged that a person of ordinary skill in the art would be very hesitant to employ elements from a reference, where the description of the structure of the reference is inconsistent and contradictory in itself.

Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add the pole pitches, disclosed by Kaburagi et al. to the belt, and add the sensor and counting circuit disclosed by Kaburagi et al. to the base disclosed by Gruhler in order to not only detect that motion is occurring up or downward as Gruhler discloses (col. 6 lines 51-56), but that an absolute position value is known.

The references Gruhler and Kaburagi et al. agree not to measure thickness and/or length of tablets, pills or oblongs. In view of this situation, a person of ordinary skill in the art would not look to these references for inspiration and even less be inclined to combine these references. Putting pole pieces on the endless belt of the Gruhler reference would still not make the Gruhler reference suitable to measure thickness and/or length of tablets, pills or oblongs.

The reference Kaburagi et al. is concerned with a recording apparatus with magnetic linear encoder. According to the reference Kaburagi et al., column 28, lines 40 to 42: "A sensor amplifier 738 and a counting circuit 739 are similar to those employed in the conventional recording apparatuses.". Thus according to the reference Kaburagi et al. the counting circuit 739 is associated with the recording apparatus, but does not serve for any measurement of thickness and/or length of any tablets, pills or oblongs. A person of ordinary skill in the art interested in a measurement of thickness and/or length of any tablets, pills or oblongs would not combine the reference Kaburagi et al. with the reference Gruhler, since a measurement of thickness and/or length of any tablets, pills or oblongs would still not be provided for despite the counting circuit 739 associated with recording apparatus and despite the measurement pin of the reference Gruhler.

In conclusion, a person of ordinary skill in the art will not combine the Kaburagi et al. reference with the Gruhler reference.

With reference to claims 7 & 8, Gruhler does not disclose a tension spring that engages an end of the carriage and the other end engages the base.

Kaburagi et al. discloses a tension spring (746) engaged with the carriage (732) (through connection to the pulleys) in order to take up the scale (733) without slack (col. 28 lines 33-35). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add the tension spring disclosed by Kaburagi et al. to the rollers/carriage disclosed by Gruhler in order to take up the belt without slack.

The reference Kaburagi et al. in column 28, lines 33 and 34: "said pulley 747 and the belt pulley 735 are elastically connected by a spring 746.". According to the reference Kaburagi et al. pulley 747 and belt pulley 735 are both movable elements.

Claim 7 of the present application as amended reads in part: "wherein the spring (26) is a tension spring that engages, on the one hand, with the end of the carriage (4) facing the base and, on the other hand, with the base (1). " Thus the spring 26 engages a movable end of the carriage (4) and the fixed base. This is clearly different and patentably distinguishes from the reference attaching a spring 746 between two movable pulleys.

If a person of ordinary skill in the art seeing the Kaburagi et al reference with a spring 746 disposed between pulley 747 and belt pulley 735 would look to the reference Gruhler for finding two pulleys to be connected by a spring, then upper deflection pulley 6 and lower deflection pulley 7 would be found in the reference Gruhler, This would clearly be a different

construction than what is claimed in claim 7 of the instant application, where one end of the spring 26 is attached to the base (1).

14. Claims 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Gruhler & Kaburagi et al. as applied to claims 1-5 & 7-10 above, and further in view of Hassell (U.S. Patent 6185832).

Gruhler & Kaburagi et al. disclose all of the instant claimed invention as stated above in the rejection of claims 1-5 & 7-10, but does not disclose the movement means has teeth into which a drive cog wheel meshes.

Applicant respectfully disagrees.Neither The reference Gruhler nor the reference Kaburagi et al. teach a thickness and/or length measuring device for tablets, pills or oblongs.

Hassell discloses an apparatus (15) for callipering book signatures with a toothed belt (49) and drive cog wheel (50) (Figure 7) for driving movement without slippage and to maintain proper timing (col. 5 lines 1-3). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add teeth to the belt and drive wheel disclosed by Gruhler & Kaburagi et al. in order to drive movement without slippage and to maintain proper timing in measurement.

The reference Hassell teaches in column 4, lines 61 to 64: "The roller 47 extends beneath the back end of the measuring arm 37 so as to contact the underside of the measuring arm for each rotation of the pulley 48.".

There is no roller 47 and no contacting of a measurement arm 37 for each rotation of a pulley 48, as taught in the Hassell reference, present in the invention of this application. No motion of any pulley of the present invention is associated with any contacting of a measurement arm. The proposition of the Hassell reference with the contacting of a measurement arm is clearly outside of the instant application.

The reference Hassell teaches in column 4, line 64 to column 5, line 3: "That pulley 48 is rotated by a drive train including a belt 49 also extending over a reset drive pulley 50 and an idler pulley 51. The belt 49, and at least the reset drive pulley 50 and the roller pulley 48, preferably are toothed or otherwise operative to drive the pulley 48 without slippage, to maintain the proper timing of the return cam 46 as described above. ".

Thus the Hassell reference teaches a presence of three pulleys: roller pulley 48, reset drive pulley 50 and idler pulley 51. in contrast the embodiments in Figs. 1 and 2 of thee present application show at most two pulleys. A person of ordinary skill in the art lookingg at the reference Hassell would have provided a three pulley construction and not the at most two pulley cconstruction shown in applicant's drawings.

The Hassell reference teaches a reset drive pulley 50 and states that the reset drive pulley is to drive the roller pulley 48 without slippage to maintain the proper timing of the return cam 46, that is a second roller is to

be driven without slippage. However, the instant application does not require that any second pulley be driven without slippage. Thus a person of ordinary skill in the art of measuring thickness and length of pharmaceutical tablets, pills and oblongs would not look to the teaching of the Hassell reference with three pulleys on one belt, with driving a second pulley without slippage and with maintaining of proper timing of the return cam 46, which all are outside of the instant application..

Reconsideration of all outstanding rejections is respectfully requested.

All claims as presently submitted are deemed to be in form for allowance and an early notice of allowance is earnestly solicited.

Respectfully submitted,
Thilo Kramer

By: Horst M. Kasper
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Horst M. Kasper, his attorney
13 Forest Drive, Warren, N.J. 07059
Telephone: (908)757-2839
Telefax: (908)668-5262
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